



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

3100 Port of Benton Blvd • Richland, WA 99352 • (509) 372-7950

October 14, 2004

Mr. James L. Day, Manager  
Water Utilities  
Fluor Hanford, Inc.  
P.O. Box 1000, MSIN: R3-15  
Richland, Washington 99352

**RECEIVED**  
OCT 19 2004  
**EDMC**

Mrs. Mary F. Jarvis  
Regulatory Compliance  
Richland Operations Office  
United States Department of Energy  
P.O. Box 550, MSIN: A5-15  
Richland, Washington 99354

Dear Mr. Day and Ms. Jarvis:

Re: Review of 100-N Sewage Lagoon Revised Operations and Maintenance Manual  
(U1-0-16.01, Revision 6), FH-0401422, May 12, 2004

This letter is in response to the updates for the 100-N Sewage Lagoon Operations and Maintenance (O&M) Manual which was submitted to the Washington State Department of Ecology (Ecology) in accordance with State Water Discharge Permit ST 4507, Permit Condition S5.G dated May 12, 2004. Your letter indicated changes to Revision 6 of the O&M Manual, incorporating information from Ecology's comments/review of Revision 5. A copy of the revised O&M Manual was enclosed. Ecology thanks you for considering our comments.

Ecology has reviewed the updates to the O&M Manual and its changes in its entirety, for the most part the deficiencies in the previous version of the manual have been addressed in this revision 6. However, Ecology believes that some sections of the manual are incomplete and others may need clarification.

Ecology will require the O&M deficiencies to be corrected and resolved with the permit re-issuance and the required first submittal of the O&M Manual (within the first year of the new permit). The O&M Manual should be prepared and submitted by the Permittee in accordance with Washington Administrative Code-173-240-080. The re-issued permit will contain new

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permit language requiring changes and updates to the O&M Manual be reviewed and approved by Ecology. Below are our comments and recommendations from the review of Revision 6:

1. Section 3.2, Operation of Lagoons, does not address the Infiltration Lagoon. Does the treatment system consist of three lagoons? If yes, the operation of all three lagoons should be described in this section.
2. Figure 5 of Appendix G shows a sludge measurement device. However, our review did not see a description of how the sludge measurement device works and how it will be used at the facility.
3. Page 13, "*toxic materials*" is given as a possible cause of low dissolved oxygen. How will it be determined if toxic materials are the cause of low dissolved oxygen and if so, what will the response be? Add appropriate description to the manual.
4. Page 14 describes leakage from the lagoon, and it is stated that "*necessary steps should be taken to find the location of the leak(s)*". What are the "necessary steps"? The steps should be described.
5. Page 17 of the manual states that "*a jar test may be used to determine the need to desludge*". Ecology could not find in the manual where a "jar test" was described or explained. The term "jar test" should be explained in the manual. Add this explanation.
6. The operation of the In-stream unit is not adequately described. Is the In-stream unit a part of the treatment system? What is its current and future role with the facility? Should its operation be described in the manual? Add a description of the operation to the manual.
7. Table 3.1 in Section 3.1 describes the requirements for daily surveillance of the lagoon system. The In-Stream unit is not included in this inspection. Again, if this new unit is a part of the treatment system, it should be added to the report and inspected daily. Revise table as appropriate.

During your next annual review of the manual, as required by Permit Condition S5.G of Permit No. 4507, please address the deficiencies noted above.

Ecology recognizes that Permit ST 4507 renewal application was submitted in 2001, and Ecology has not issued a new permit due to resources and project priorities. Ecology plans to work with the facility in the near future.

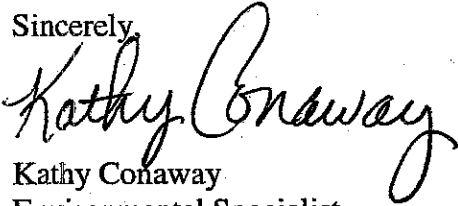
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If you have any questions regarding this letter, please feel free to contact me at the above address, or call me at (509) 372-7890.

Sincerely,

A handwritten signature in cursive script that reads "Kathy Conaway". The signature is written in dark ink and is positioned above the printed name and title.

Kathy Conaway  
Environmental Specialist  
Nuclear Waste Program

KC:nc

cc: D. J. Ortiz, DOE-RL  
Sally Sieracki, DOERL  
Raja Ranade, FH  
Stuart Harris, CTUIR  
Russell Jim, YN  
Pat Sobotta, NPT  
Todd Martin, HAB  
Ken Niles, OOE  
Administrative Record: ST 4507  
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